

Indexed Fixed Income at State Street Global Investors 2024 Snapshot

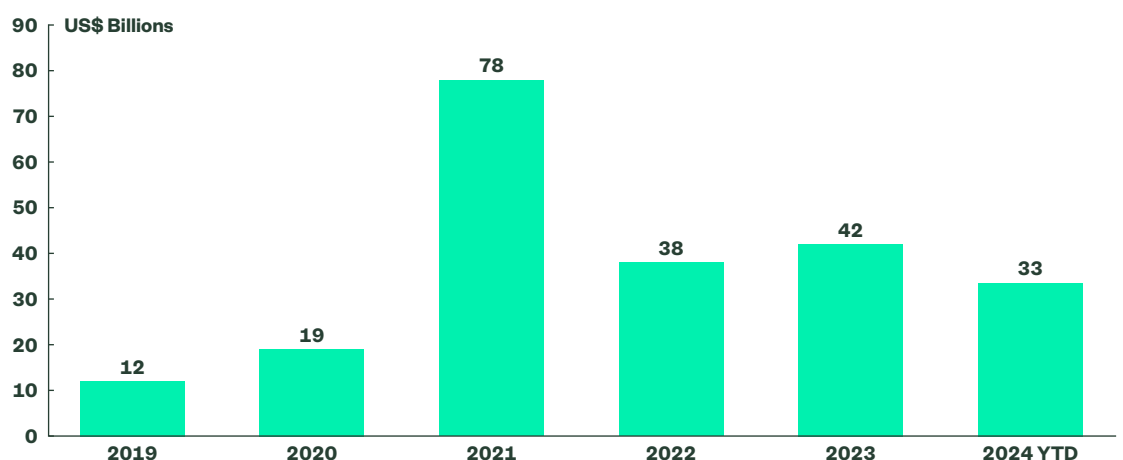
Our Indexed Fixed Income franchise has been a notable highlight for State Street Global Advisors, with exceptional progress achieved over the last five years. Moreover, we continue to see strong interest in the asset class despite volatile markets and an uncertain economic outlook. We believe that the innovative and systematic approach we take to consistently deliver indexed returns is a key factor in our clients' decisions to partner with us to achieve their fixed income goals.

Strong Flows Across Core Sectors

The strength of demand for indexed fixed income strategies managed by State Street Global Advisors is illustrated by net inflows of over \$40 billion in 2023, the second highest in our history. This performance came despite a challenging economic backdrop for most regions as major central banks raised rates throughout the calendar year in order to quell inflation. Even with a shaky market outlook and the significant ramifications for an asset class so closely tied to the path of interest rates, we still achieved positive inflows of \$42 billion into our indexed fixed income platform. These flows were realized primarily within our government and multi-sector strategies, with investor interest in the credit sectors ramping up in the final quarter of 2023 amid improving investor sentiment.

This trend continued through the first nine months of 2024 with an additional \$33 billion of net inflows — largely concentrated in the same core sectors. Interestingly, there were also significant flows into high yield. As of the end of September 2024, we were managing a record high of \$666 billion in dedicated indexed fixed income assets, distributed across a broad range of exposures from simple to complex.

Figure 1
Sustained Growth in Indexed Fixed Income Assets Under Management



Source: State Street Global Advisors as of September 30, 2024. Increase in AUM by calendar year.

The breadth of indexed exposures that investors can access with State Street Global Advisors spans the whole fixed income spectrum. Our assets under management (AUM) have been growing across all major segments, with the latest available AUM as of September 30, 2024:

Sovereigns \$304B	<ul style="list-style-type: none"> • Global Governments • US Treasuries, STRIPS • Euro Governments • UK Gilts • Inflation Linked • China Bond 	High Yield \$42B	<ul style="list-style-type: none"> • Global HY • US, Euro HY • Short HY • Preferreds • Convertibles • Leveraged Loans • Enhanced High Yield
Multi Sector \$171B	<ul style="list-style-type: none"> • Global Aggregate • US, Euro, Sterling, Agg • Asia Bond • Short, Intermediate, Long Duration Agg • LDI 	EMD \$41B	<ul style="list-style-type: none"> • EM Local Currency • EM Hard Currency • EM Corporate • EM Inflation • Enhanced EM (Local)
IG Corporate \$93B	<ul style="list-style-type: none"> • Global Credit • US, Euro, Sterling, Credit • US High Quality Corporate • US Long Duration Credit • Systematic Active Fixed Income (SAFI) • Municipals 	Securitized \$16B	<ul style="list-style-type: none"> • Mortgage Backed • Asset Backed • Commercial Mortgage Backed
		Sustainable \$156B	<ul style="list-style-type: none"> • ESG-Screened • Climate • R-Factor • Values-Based/ Client Specific

Why State Street Global Advisors for Indexed Fixed Income?

Precise Exposures As an indexing pioneer with a broad suite of capabilities, we build tailored solutions for exacting client objectives from our expansive suite of transparent and reliable building blocks.

Expertise Across the Spectrum We have forged a deep understanding off all aspects of the fragmented, and still evolving, fixed income market — unlocking new ways to add value for clients across the risk and liquidity spectrums.

Cutting-Edge Execution Our highly sophisticated approach to portfolio construction and liquidity management capitalizes on evolutions in fixed income markets, opening new potential sources of value for our clients. As we detail in [The Modernization of Bond Market Trading and its Implications](#), improved liquidity and lower transaction costs stemming from an expansion in electronic trading and the growth of the fixed income ETF industry are paving the way for wider adoption of systematic fixed income investing.

Strategy Innovation

Notwithstanding our historical success in fixed income indexing, we continuously strive to improve and expand our offerings to offer new exposures and deliver solutions for the most complex client needs.

High Quality Corporate Systematic Active

We launched our Systematic Active Fixed Income (SAFI) capability in 2023. This brings together the quantitative research expertise of Barclays QPS and State Street Global Advisors' leadership in efficient implementation and precise exposure. Prior to this, the fixed income team was managing two "smart beta" strategies in the 5–20 years and 20+ years high quality segments of the market. These have transitioned to follow a systematic investment approach and are now available in the more popular maturity profiles of intermediate (1–10 years) and long (10+ years).

Our SAFI strategies combine three factor signals — **value**, **sentiment**, and **momentum** — in the security selection process and have alpha and annual tracking error targets of 95 basis points (bps) and 61 bps, respectively. Launched at the end of 2023, both the Systematic USD Investment Grade Long Corporate Bond Strategy and Systematic USD High Quality Intermediate Corporate Bond Strategy have delivered on their alpha targets in the first six months of the year. While we acknowledge the short reference period, this strong start is a proof of concept that the quantitative research and implementation expertise underpinning the strategies are very effective in the live environment. Furthermore, the strategies' low observed alpha correlation with fundamental peers highlights the complementary role that a systematic active approach can play within an overall credit allocation. This speaks to the differentiated alpha profile of a systematic approach versus existing, and primarily fundamentally driven, active credit managers.

	YTD Alpha	YTD TEV (Annualized)
State Street Systematic USD High Quality Intermediate Corporate Bond Strategy	55 bps	27
State Street Systematic USD Investment Grade Long Corporate Bond Strategy	65 bps	29

Source: State Street Global Advisors as of September 30, 2024. Past performance is not a reliable indicator of future performance.

In addition to the live Systematic Fixed Income Strategies that are already open for investment, we are constantly researching and establishing additional systematic strategies to make available for seed investors. These include the below listed strategies:

- US Investment Grade Corporate Bond
- US Investment Grade Long Corporate Bond
- Euro Investment Grade Corporate Bond
- US Investment Grade Corporate Climate Bond
- US Long Corporate Bond
- Euro Investment Grade Corporate Climate Bond
- Global Investment Grade Corporate Bond
- Global Investment Grade Corporate Climate Bond
- US High Yield Corporate Bond
- US High Yield Corporate BB -B Bond
- Global High Yield Corporate Bond
- Enhanced US Core Bond

We also have a US Corporate Fallen Angels strategy in the research pipeline.

Indexed Leveraged Loans

The leveraged loans market continues to expand at a rapid pace. In the first nine months of 2024, new issuance topped US\$990 billion, almost three times the volume recorded in the same period a year earlier. What is particularly impressive is how this large issuance volume has been so easily absorbed by investor demand. In recognition of this demand and numerous client inquiries for an investible vehicle, we created an institutional vehicle for indexed leveraged loans that provides investors with reliable exposure to the loans market at a fraction of the cost of either active approaches and/or popular exchange traded funds (ETFs).

Our new indexed loans strategy has grown to \$987 million in AUM¹, a notable accomplishment given it only launched in April of 2024. To drive this new initiative, we assembled a team with deep loan expertise from our parent State Street Bank. This team is comprised of specialist loan portfolio managers and research analysts who have been integrated with our proven investment team's capabilities and implementation expertise in indexed high yield. We believe that our indexed loans strategy offers a compelling alternative to established active approaches. We look forward to building on this highly successful launch that has unlocked yet another complex fixed income exposure in index form for our clients and prospects.

Thought Leadership

We publish relevant and timely thought leadership on an ongoing basis, sharing insights on markets and investments and how we adapt and innovate to deliver best-in-class outcomes for our clients. Some of our recent publications are listed below:

Exploring the Full Spectrum of Fixed Income Strategies Bond investing is so much more than just active vs. passive. In this paper, we take a look at the full continuum of fixed income investment styles.

Implementation Alpha: Adding Value in Indexed Fixed Income Complexity within fixed income markets means that skilled index managers can add value by pursuing an approach that is more than just "passive."

The Fixed Income Side of Factor Investing Factor investing is popular within the realm of equities, but only recently has come to the fore in fixed income. This piece takes a look at the factors we consider within our SAFI strategies.

The Rise in Systematic Credit Investing This three-part article provides an overview of systematic investing as it applies to active management of credit portfolios including data-driven signals, risk management and implementation techniques.

Our Approach to Leveraged Loan Indexing: A Q&A We discuss our process for leveraged loan indexing and our management of some of the most pressing challenges in indexing for this asset class.

Private Credit Allocations vs Leveraged Loans and High Yield Private credit assets have grown sharply. Alongside leveraged loans and high yield, we look at the factors informing allocations in sub-investment grade assets.

The Evergreen Case for a Strategic Allocation to High Yield High yield bonds have evolved into a globally diversified, high-income asset class. Offering shorter recovery times, resilience, and cost-efficient access, high yield serves as a strong portfolio diversifier with lower volatility than equities.

GCC Fixed Income: An Alternative Diversifier to Core Allocations Growth in major Gulf Cooperation Council (GCC) countries has stoked demand for their highly-rated debt. For investors seeking to diversify fixed income portfolios, the bonds of these countries have become increasingly attractive options.

A Capital Efficient Approach for Managing DB Plan Assets In this article, we explain a capital efficient approach that could allow DB plans to better accomplish hedging objective and improve their risk/return profiles.

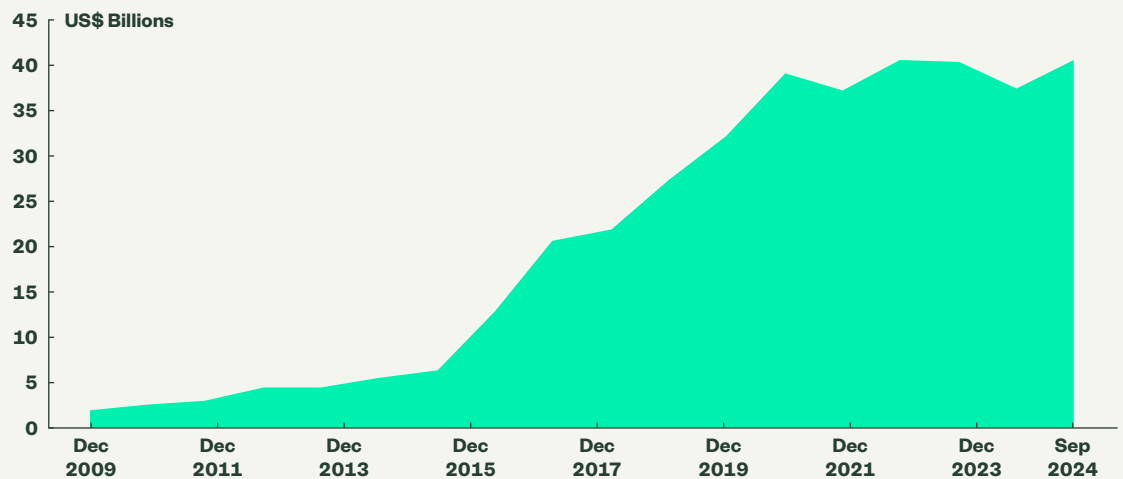
In Focus: Emerging Market Debt

We are one of the world's largest managers of indexed EMD with about \$41 billion of dedicated assets at the end of September 2024.

Although global inflation, high interest rates, and ongoing geopolitical conflict have presented headwinds for emerging market debt, our conviction in an emerging markets allocation remains strong. This is particularly true for EMD hard currency, which in our view offers attractive carry.

- Risk management and cost minimization are keys to success in this asset class, and we have continuously improved our processes to track the index more effectively, from tax lot planning and control of all FX trading to sampling techniques that add value in portfolio implementation.
- We are focused on continual process improvements in how we assess and implement the optimal portfolio through time, and where we take advantage of technical inefficiencies and our insights around index events to add value for our clients. This is all controlled within the tight risk and benchmark constraints of an index approach, and overseen by our independent investment risk management team.

Figure 2
EMD Assets Under Management Exceed \$40 Billion



Source: State Street Global Advisors as of September 30, 2024. Figures provided in USD.

For more information on our emerging market debt capabilities, please see the following thought leadership article: [Emerging Market Debt at State Street Global Advisors](#).

Developments in Our Investment Process and Business

The fixed income team at State Street Global Advisors has developed a proprietary portfolio optimizer that is now being used in the management of our fixed income strategies. This powerful tool uses a multitude of inputs, including live bond level liquidity and pricing data to drive the buy and sell lists used for rebalancing after large client flows and index changes. While we still rely heavily on the knowledge and expertise of our specialist portfolio managers to make the final decision, this quantitative engine enables rapid, consistent, and efficient portfolio rebalancing by proposing trades to the portfolio manager to evaluate and ultimately approve or amend.

We view our optimizer as a highly effective tool that helps our portfolio managers process flows effectively, consistently and rapidly across multiple portfolios simultaneously. This enables our fixed income portfolio management team to implement at scale and speed, for the benefit of our client portfolios and to exploit market liquidity and opportunities as they arise in the market.

What's Next?

Looking ahead, we plan to publish more thought leadership that we expect will stimulate discussion around all things indexed fixed income. These include:

- Series on Indexing in Leveraged Loans including: the Case For; Enhancements; Liquidity Considerations.
- The Case for Emerging Market Hard Currency Debt
- Fiscal Themes and Their Implications
- A Capital Efficient Approach for Managing Defined Benefit (DB) Plan Assets

For more information on our indexed fixed income offerings and insights, please visit our website: [Fixed Income](#).

If you would like to schedule a meeting with our fixed income indexing experts, please reach out to your relationship manager.

Endnote

- 1 Source: State Street Global Advisors as of September 30, 2024.

About State Street Global Advisors

For over four decades, State Street Global Advisors has served the world's governments, institutions, and financial advisors. With a rigorous, risk-aware approach built on research, analysis, and market-tested experience, and as pioneers in index and ETF investing, we are always inventing new ways to invest. As a result, we have become the world's fourth-largest asset manager* with US \$4.73 trillion[†] under our care.

* Pensions & Investments Research Center, as of December 31, 2023.

[†]This figure is presented as of September 30, 2024 and includes ETF AUM of \$1,515.67 billion USD of which approximately \$82.59 billion USD in gold assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.

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Marketing Communication.

State Street Global Advisors Worldwide Entities

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This document provides summary information regarding the Strategy. This document should be read in conjunction with the Strategy's Disclosure Document, which is available from SSGA. The Strategy Disclosure Document contains important information about the Strategy, including a description of a number of risks.

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